

## ABSTRACT

A communication system comprises a first interface system and a second interface system. The first interface system receives a SONET signal including section overhead and line overhead in a transport overhead and including path overhead and user data in a payload. In response, the first interface system transfers the section overhead, line overhead, path overhead, and user data. The second interface system receives the section overhead, line overhead, path overhead, and user data. In response, the second interface system regenerates the SONET signal including the section overhead and line overhead in the first transport overhead and including the path overhead and user data in the payload. The second interface system transfers the regenerated SONET signal.